

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

A-728  
Revision 6  
AERONCA

50-TC  
65-TC(Army L-3J)  
YO-58(Army L-3)  
60-TF  
65-TF  
50-TL  
65-TL  
65-TAC(Army L-3E)  
65-TAF(Army L-3D)  
65-TAL

April 8, 2014

AIRCRAFT SPECIFICATION NO. A-728

Type Certificate Holder	National Aeronca Association 806 Lockport Road P.O. Box 2219 Terre Haute, IN 47802
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Name change from Aeronca to National Aeronca Association March 7, 2005.

I - Model 50-TC, 60-TF, 50-TL, 2 PCLM, Approved June 15, 1940.

(All three models are the same except for engine installation).

Engine	50-TC : Continental A-50-7
Fuel	Fuel : 73 minimum octane aviation gasoline
Engine limits	Limits : For all operations, 1900 rpm (50 hp)
	60-TF : Franklin 4AC-150 Series A
	(Single Eisemann magneto)
	Fuel : 73 minimum octane aviation gasoline
	Limits : For all operations, 2400 rpm (60 hp)
	50-TL : Lycoming O-145-A1
	Fuel : 65 minimum octane aviation gasoline
	Limits : For all operations, 2300 rpm (50 hp)

Airspeed Limits	Level flight or climb	100 mph True Ind.
	Glide or dive	135 mph True Ind.

Propeller limits	50-TC : Static rpm at full throttle,	not over 1950, not under 1750.
	No additional tolerance permitted.	
	Diameter: Not over 77 in.,	not under 70 in.
	60-TF : Static rpm at full throttle,	not over 2450, not under 2150.
	No additional tolerance permitted. Diameter:	
	Not over 77 in.,	not under 70 in.
	50-TL : Static rpm at full throttle,	not over 2315, not under 2050.
	No additional tolerance permitted. Diameter:	
	Not over 77 in.,	not under 68 in.

C.G. range	(+13.4) to (+20.7)
Empty weight C.G. range	(+9.6) to (+15.5). When empty weight C.G. falls within this range, computations of critical fore and aft C.G. positions are unnecessary.
	This range not valid for non-standard arrangements.

Maximum weight	1150 lbs.
No. seats	2 (+8 and +38)
Maximum baggage	40 lbs. (+57.5)
Fuel capacity	12 gals. (One 2 gal. tank at -17, one 10 gal. tank at +21).
Oil capacity	50-TC and 60-TF: 1 gal. (-38) 50-TL: 5 qts. (-38)

Page No.	1	2	3	4	5	6	7
Rev No.	5	4	-	-	4	4	2

Serial Nos. eligible	1010T and up
Required equipment	Items 101, 102, 103, 104. Not eligible for original certification with single ignition engine after Aug. 1, 1941.

II - Model 65-TC (Army L-3J), 2 PCLM, Approved June 15, 1940:

Model YO-58 (Army L-3), 2 PCLM, Approved March 13, 1945.

(Model 65-TC same as 50-TC except engine installation and trim tab area. Tab must be modified per Dwg. 3-153. Model YO-58 similar to 65-TC except for slightly modified control system, cabin enclosure and control surfaces. Engine installation is similar to 65-TAC).

Engine	65-TC: Continental A-65-7 YO-58: Continental A-65-8
Fuel	73 minimum octane aviation gasoline
Engine limits	For all operations, 2300 rpm (65 hp)
Airspeed Limits	Level flight or climb 100 mph True Ind. Glide or dive 135 mph True Ind.
Propeller limits	Static rpm at full throttle Not over 2250, not under 2050.. No additional tolerance permitted. Diameter: Not over 77 in., not under 70 in.
C.G. range	(+13.4) to (+20.7)
Empty weight C.G. range	(+9.6) to (+15.5). When empty weight C.G. falls within this range, computations of critical fore and aft C.G. positions are unnecessary. This range not valid for non-standard arrangements.
Maximum weight	1150 lbs.
No. seats	2 (+8 and +38)
Maximum baggage	40 lbs. (+57.5)
Fuel capacity	12 gals. (One 2 gal. tank at -17, one 10 gal. tank at +21).
Oil capacity	1 gal. (-38)
Serial Nos. eligible	65-TC: 1010T and up. YO-58: TCA 10291, 10301, 10311 and 10321 corresponding to AAF Nos. 42-456 to 42-459
Required equipment	Items 101, 102, 103, 104. Not eligible for original certification with single ignition engine after Aug. 1, 1941. Prior to certification, each YO-58 must have a set of engine controls installed at rear seat.

III - Model 65-TF, 2 PCLM, Approved October 9, 1940.

(Same as 50-TC except engine installation).

Engine	Franklin 4AC-176-B2
Fuel	73 minimum octane aviation gasoline
Engine limits	For all operations, 2200 rpm (65 hp)
Airspeed Limits	Level flight or climb 100 mph True Ind. Glide or dive 135 mph True Ind.
Propeller limits	Static rpm at full throttle, Not over 2050, not under 1950. No additional tolerance permitted. Diameter: Not over 77 in., not under 70 in.
C.G. range	(+13.4) to (+20.7)
Empty weight C.G. range	(+9.6) to (+15.5). When empty weight C.G. falls within this range, computation of critical fore and aft C.G. positions is unnecessary. This range not valid for non-standard arrangements.
Maximum weight	1150 lbs.
No. seats	2 (+8 and +38)
Maximum baggage	40 lbs. (+57.5)
Fuel capacity	12 gals. (One 2 gal. tank at -17, one 10 gal. tank at +21).
Oil capacity	5 qts. (-38)
Serial Nos. eligible	1010T and up
Required equipment	Items 101, 102, 103, 104. Not eligible for original certification with single ignition engine after Aug. 1, 1941.

IV - Model 65-TL, 2 PCLM, Approved June 15, 1940.

(Same as Model 50-TC except engine installation).

Engine	Lycoming O-145-B1
Fuel	73 minimum octane aviation gasoline
Engine limits	For all operations, 2550 rpm (65 hp)
Airspeed Limits	Level flight or climb 100 mph True Ind. Glide or dive 135 mph True Ind.
Propeller limits	Static rpm at full throttle, Not over 2550, not under 2250.. No additional tolerance permitted. Diameter: Not over 77 in., not under 68 in.
C.G. range	(+13.4) to (+20.7)
Empty weight C.G. range	(+9.6) to (+15.5). When empty weight C.G. falls within this range, computation of critical fore and aft positions is unnecessary. This range not valid for non-standard arrangements.
Maximum weight	1150 lbs.
No. seats	2 (+8 and +38)
Maximum baggage	40 lbs. (+57.5)
Fuel capacity	12 gals. (One 2 gal. tank at -17, one 10 gal. tank at +21).
Oil capacity	5 qts. (-38)
Serial Nos. eligible	1010T and up
Required equipment	Items 101, 102, 103, 104. Not eligible for original certification with single ignition engine after Aug. 1, 1941.

V - Model 65-TAC (Army L-3E), 2 PCLM, Approved NOVEMBER 24, 1941.

(Same as 65-TC except for revised control system and minor structural changes).

Engine	Continental A-65-8
Fuel	73 minimum octane aviation gasoline
Engine limits	For all operations, 2300 rpm (65 hp)
Airspeed Limits	Level flight or climb 95 mph True Ind. Glide or dive 129 mph True Ind.
Propeller limits	Static rpm at full throttle, Not over 2200, not under 1960.. No additional tolerance permitted. Diameter: Not over 75 in., not under 70 in.
C.G. range	(+13.5) to (+19.9)
Empty weight C.G. range	(+9.9) to (+15.6). When empty weight C.G. falls within this range, computation of critical fore and aft C.G. positions is unnecessary. This range not valid for non-standard arrangements.
Maximum weight	1200 lbs.
No. seats	2 (+8 and +38)
Maximum baggage	40 lbs. (+57.5) Placard required: "23 lbs. maximum when flying solo".
Fuel capacity	12 gals. (One 2 gal. tank at -17, one 10 gal. tank at +21).
Oil capacity	1 gal. (-38)
Serial Nos. eligible	C-1011TA to C-3162A, incl., C-4022TA and up and all AAF Nos. Use manufacturer's serial number, if available.
Required equipment	Items 101, 102, 103, 104. Not eligible for original certification with single ignition engine after Aug. 1, 1941.

VI - Model 65-TAF (Army L-3D), 2 PCLM, Approved November 24, 1941.

(Same as 65-TF except for revised control system and minor structural changes).

Engine	Franklin 4AC-176-B2
Fuel	73 minimum octane aviation gasoline
Engine limits	For all operations, 2200 rpm (65 hp)
Airspeed Limits	Level flight or climb 95 mph True Ind. Glide or dive 129 mph True Ind.

Propeller limits	Static rpm at full throttle, Not over 2160, not under 1975.. No additional tolerance permitted. Diameter: Not over 76 in., not under 70 in.
C.G. range	(+13.5) to (+19.9)
Empty weight C.G. range	(+9.9) to (+14.7). When empty weight C.G. falls within this range, computation of critical fore and aft C.G. positions is unnecessary. This range not valid for non-standard arrangements.
Maximum weight	1200 lbs.
No. seats	2 (+8 and +38)
Maximum baggage	40 lbs. (+57.5)
Fuel capacity	12 gals. (One 2 gal. tank at -17, one 10 gal. tank at +21).
Oil capacity	1 gal. (-38)
Serial Nos. eligible	F-1011TA and up and all AAF numbers. Use manufacturer's number if available.
Required equipment	Items 101, 102, 103, 104. Not eligible for original certification with single ignition engine after Aug. 1, 1941.

#### VII - Model 65-TAL, 2 PCLM, Approved February 12, 1942.

(Same as 65-TL except for revised control system and minor structural changes).	
Engine	Lycoming O-145-B2
Fuel	73 minimum octane aviation gasoline.
Engine limits	For all operations, 2550 rpm (65 hp)
Airspeed Limits	Level flight or climb 95 mph True Ind.
	Glide or dive 129 mph True Ind.
Propeller limits	Static rpm at full throttle, Not over 2290, not under 2150. No additional tolerance permitted. Diameter: Not over 70 in., not under 68 in.
C.G. range	(+13.5) to (+19.9)
Empty weight C.G. range	(+9.9) to (+16.8). When empty weight C.G. falls within this range, computation of critical fore and aft C.G. positions is unnecessary. This range not valid for non-standard arrangements.
Maximum weight	1200 lbs.
No. seats	2 (+8 and +38)
Maximum baggage	40 lbs. (+57.5) Placard required: "Zero pounds maximum baggage when flying solo."
Fuel capacity	12 gals. (One 2 gal. tank at -17, one 10 gal. tank at +21).
Oil capacity	5 qts. (-38)
Serial Nos. eligible	L-1011TA and up
Required equipment	Items 101, 102, 103, 104. Not eligible for original certification with single ignition engine after Aug. 1, 1941.

#### Specifications Pertinent to All Models

Datum	Wing leading edge
Leveling means	Cabin floor
Control surface movements	Models 50-TC, 65-TC, 60-TF, 65-TF, 50-TL, 65-TL: Elevators 25° up 25° down Elevator tab 15.5° up 18.5° down Ailerons 24.5° up 24.5° down Rudder 30° right 30° left Models 65-TAC, 65-TAF, 65-TAL: Elevators 18° up 24° down Elevator tab 28.5° up 16.5° down Right Aileron 29° up 15° down Left Aileron 26.5° up 17° down Rudder 29° right 32° left
Certification basis	Type Certificate No. 728 (CAR 4a)

Production basis	None. Prior to original certification for each aircraft manufactured subsequent to August 24, 1949, a CAA Aircraft Engineering inspector must perform a detailed inspection for workmanship, materials, and conformity with the approved technical data, and a check of the flight characteristics.
Export eligibility	Eligible for export to all countries subject to the provisions of MOP 2-4, except as follows: Canada - Landplane - eligible Skiplane - not eligible. However, structure of Model T Series complies with Canadian requirements for ski installation when Item 310 is installed with tread not exceeding that with wheels and with a maximum ski pedestal height of 10 inches.

Equipment: A Plus (+) or minus (-) sign preceding the weight of an item indicates net weight change when that item is installed.

#### Propellers and Propeller Accessories

- |      |  |               |
|------|--|---------------|
| 1.   | Propeller - Hartzell ground adjustable, hub HA-12U, blades 7414 to 6814 or 7214M to 6814M. Eligible at diameter and static rpm limits shown for fixed pitch wood propellers.   | 18 lbs. (-57) |
| 101. | Propeller - wood (fixed or adjustable pitch)   | 13 lbs. (-57) |
| 109. | Propeller - Sensenich fixed pitch metal.   | 21 lbs.(-57)  |
|      | (a) Model M74CK (Models A65TC, YO58, 65TAC, L3E)<br>Static rpm at maximum permissible throttle setting:<br>Not over 2250, not under 2050.<br>No additional tolerance permitted.<br>Diameter: Not over 74 in., not under 72 in. |               |
|      | (b) Model M74CK-2 (Model 65TL, 65TAL)<br>Static rpm at maximum permissible throttle setting:<br>Not over 2550, not under 2250.<br>No additional tolerance permitted.<br>Diameter: Not over 72 in., not under 68 in.            |               |

#### Engine and Engine Accessories - Fuel and Oil System

- |      |  |               |
|------|--|---------------|
| 104. | Carburetor Air Heater  |               |
| 105. | Continental air intake & filter (Model 65-TAC only)                                      | 1 lb. (-41)   |
| 106. | AC Air filter 1529265 (Aircooled Motors Dwg. SK-534-3)<br>(Models 65-TF and 65-TAF only) | +2 lbs. (-49) |
| 108. | Oil filter, Fram PB-5, Weight includes 1 qt. of oil                                      |               |
|      | (a) For models 65-TF, 65-TAF: Kit No. 501, Fram installation Dwg. 61554                  | 4 lbs. (-32)  |
|      | (b) For model 60-TF: Kit No. 500, Fram installation Dwg. 61552                           | 4 lbs. (-19)  |
| 305. | Carburetor air cleaner (Models 50-TC, 65-TC, and 65-TAC only)                            | 1 lb. (-50)   |
| 306. | Cabin heater: Model T Series   | 2 lbs. (-37)  |
|      | Model TA Series  | 1 lb. (-31)   |
| 307. | Engines  |               |
|      | A. Model 50-TC (Continental - per Engine Spec. No. 190)(-36)                             |               |
|      | (1) A-50-8   | +10 lbs.      |
|      | (2) A-50-9   | +13 lbs.      |
|      | B. Model 65-TC (Continental - per Engine Spec. No. 205)                                  |               |
|      | (1) A-65-8   |               |
|      | (2) A65-9  |               |
|      | C. Model 60-TF (Franklin 4AC-150, series A - per Engine Spec. No. 194)                   |               |
|      | (1) Single Bendix magneto  | +3 lbs.       |
|      | (2) Dual Eisemann magnetos   | +8 lbs.       |
|      | (3) Dual Bendix magnetos   | +14 lbs.      |

- D. Model 50-TL (Lycoming - per Engine Spec No. 199)  
 (1) O-145-A2 +11 lbs.  
 Engine limits - For all operations, 2300 rpm (55 hp)  
 (2) O-145-A3 +15 lbs.  
 (Engine limits - Same as D (1))
- E. Model 65-TL (Lycoming - per Engine Spec. No. 210)  
 (1) O-145-B2 +11 lbs.  
 (2) O-145-B3 +14 lbs.
- F. Model 65-TF (Franklin - per Engine Spec. No. 221)  
 (1) 4AC-176-BA2 No weight change  
 Engine limits: For all operations, 2300 rpm (65 hp)  
 Propeller limits:  
 Static rpm at full throttle:  
 Not over 2250, not under 2050.  
 No additional tolerance permitted.  
 Diameter: Not over 77 in., not under 70 in.
- G. Models 65-TAC and YO-58 (Continental - per Engine Spec. No. 205)  
 (1) A-65-8J +3 lbs.
- H. Model 65-TAF (Franklin - per Engine Spec. No. 221)  
 (1) 4AC-176-BA2 No weight change  
 Engine limits: For all operations, 2300 rpm (65 hp)  
 Propeller limits:  
 Static rpm at full throttle:  
 Not over 2175, not under 1975.  
 No additional tolerance permitted.  
 Diameter: Not over 74 in., not under 70 in.

#### Landing Gear and Floats

102. 6.00-6 wheels (Shinn 6C5) and tires 23 lbs. (-4)  
 103. Tail skid (Dwg. 4-105) 6 lbs. (+188)  
 301. 6.00-6 brake type wheels (Shinn 6C5B or 6C5HB or Goodyear L6MBM) +5 lbs. (-4)  
 304. Wheel streamlines 6 lbs. (-4)  
 308. Tail wheel: (a) Full swiveling +2 lbs. (+188)  
 (b) Steerable +3 lbs. (+188)  
 310. Shock strut special attachment bolt (Dwg. 1-875) No weight change  
 (Model T Series only)
311. Skis (Eligible on any airplane of these models provided the propeller installation meets the minimum 9 in. ground clearance. The maximum weight for the skiplane will be the same as for the corresponding landplane or that shown in parenthesis after each ski model, whichever is less)  
 (a) Federal SA-1 (Maximum 1200 lbs.) Use actual weight change  
 (b) Federal SC-1 (Maximum 1400 lbs.) Use actual weight change  
 (c) Marston MFS-1600 (Maximum 1600 lbs.) Use actual weight change  
 (d) Jennings TY-2 (Maximum 1200 lbs.) Use actual weight change  
 (e) Federal SC-2 (Maximum 1650 lbs.) Use actual weight change  
 (f) Heath 725 (Maximum 1450 lbs.) Use actual weight change  
 (g) Piper S-1000 (Maximum 1200 lbs.) Use actual weight change  
 (h) Wollman W-1650 (Maximum 1650 lbs.) Use actual weight change  
 (i) Heath 725A (Maximum 1450 lbs.) Use actual weight change  
 (j) Federal CA-1850-6 (Federal Instal. Dwg. 11R241) 48 lbs. (0)  
 (k) Federal A-2000A (Federal Instal. Dwg. 11R241) 49 lbs. (0)  
 (l) Federal A-2000 (Federal Instal. Dwg. 11R241) 41 lbs. (0)  
 (m) Federal A-1850 (Federal Instal. Dwg. 11R241) 38 lbs. (0)  
 (n) Federal A-1500 (Federal Instal. Dwg. 11R241) 37 lbs. (0)  
 (o) Federal A-1500A (Federal Instal. Dwg. 11R241) 39 lbs. (0)
312. Front brake pedals (For dual brake installation) 2 lbs. (-14)  
 (TA Series only)
313. 6.00-6 wheels and brakes (Cleveland Aircraft Products 6:00 MBA) and Aeronca 6.00-6 2-ply tires (TA series only) (Requires axle 3-180) +7 lbs. (-1)

201. 6.00-6 Wheels & brakes (Cleveland Aircraft Products 6:00 DMB-2)  
(TA series only) +7 lbs. (-4)

Electrical and Radio Equipment

302. Battery 13 lbs. (-25)  
309. "T" antenna 1 lb. (+80)

NOTE 1. Required Placards:

- (a) All models - on instrument panel either: "Occupy rear seat when flying solo."

--or--

"Before flying front seat solo insure weight and balance are within published limits"

- (b) Model 65-TAC - at baggage compartment: "23 lbs. maximum when flying solo."

- (c) Model 65-TAL - at baggage compartment: "Zero pounds maximum baggage when flying solo."

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